

NASA White Sands Test Facility celebrates 40th anniversary

by Cheerie R. Patneau

A small test facility nestled in the San Augustine Mountains in southern New Mexico celebrated 40 years of continuous contribution to the nation's space program on Saturday, Sept. 18. The first rocket engine was tested at the White Sands Test Facility (WSTF) on Sept. 22, 1964. Five years later, on July 20, 1969, Neil Armstrong and Buzz Aldrin landed on the Moon using the propulsion systems tested and qualified for human spaceflight at WSTF.

On July 6, 1962, WSTF was chosen as the site for the Johnson Space Center Propulsion Systems Development Facility. This site was chosen for its isolated location and topography, which minimized the inherent hazards of aerospace propulsion testing to the general population. More than 310 engines have been tested to date, for a total number of firings exceeding 2.1 million.

Although originally built to support propulsion tests, WSTF soon expanded to test materials to verify their suitability for use in spacecraft construction. WSTF currently does extensive testing for other NASA centers; for other government agencies including Army, Air Force, Navy, Department of Energy and Department of Transportation; and for aerospace-related commercial industries on a reimbursable basis.



Ralph Rocha, technician, unpacks the first Service Propulsion System engine to be tested at WSTF in 1964.



A chemical steam generator provides long-duration vacuum environment for rocket engine firings at three test stands.

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A matter of Destiny

Cosmonaut Gennady I. Padalka (left), Expedition 9 commander, and Astronaut Edward M. (Mike) Fincke, NASA ISS science officer and flight engineer, pose for a crew photo in the Destiny laboratory of the International Space Station. The Destiny lab houses removable racks for crew support and scientific research experiments. Read about the roles that the Human Research Facility Training Team and Stowage Group play in helping to prepare each crew to perform experiments on orbit.

See articles on pages 6 – 9.

September
2004
Houston, Texas

Beak Sends...

A MESSAGE FROM CENTER DIRECTOR LT. GEN. JEFFERSON D. HOWELL JR.



Inspiration

Have you ever thought about whom inspired you as a youth? A parent? A teacher? A coach? An astronaut?

In his compelling book, “Flags of Our Fathers,” James Bradley describes the lives of the six young men who raised the American flag on Mt. Suribachi during the battle for Iwo Jima. The photograph of that flag raising is one of the most famous in modern times. James’ father, John Bradley, was one of those men. James felt driven to do the research that led to the book because his father would never talk about his combat experiences.

James did not find out until after his father’s death that John had been awarded the Navy Cross for Gallantry for his heroics as a Navy Corpsman in that bloody battle, the bloodiest in WWII. As he grew up in Antigo, Wis., James was continuously reminded by teachers, friends and prominent local citizens that his father was a hero and an inspiration to them.

Whenever he asked his father about his celebrity, the only response was, “The real heroes did not come back.” John Bradley, without fanfare, lived the rest of his life setting the example in being a loving husband and father, as well as an admired businessman and civic leader of his community. The success of his children and those who emulated him attest to the positive influence he had on others.

Whom are you inspiring? Have you thought about it? Being associated with NASA and human spaceflight puts you and me into a very important, and to many, an elite group. Because of who you are and what you do, you have an influence on a lot more people than you might imagine. Whether it’s your children, your nephews and nieces, the neighbor kids, your fellow workers or the bag boy at Kroger, there are a lot of folks out there who think you are special, who are watching you and who want to be just like you.

What kind of example are you setting for others? Are you the kind of person that you would like someone else to rival? We all need to consider these questions as we go about our daily lives and strive to improve our culture.

IT’S GREAT TO BE ALIVE AND IN HOUSTON!

A handwritten signature in dark ink, appearing to read "Jefferson Howell". The signature is fluid and cursive, with a large, stylized initial 'J'.

Students “ASPIRE” to tell NASA’s story

by Gary Kitmacher

When it comes to International Space Station outreach, NASA really means business.

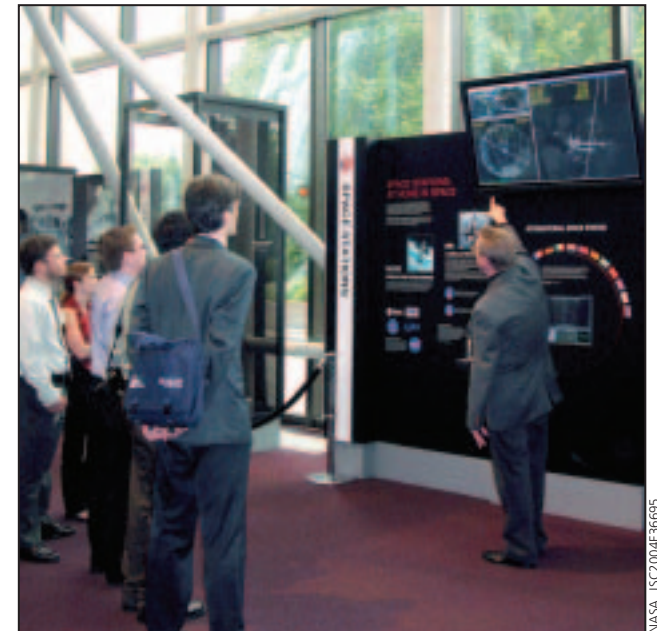
NASA Means Business is a competition designed to capture the interest of students in fields such as business and communications and channel their knowledge to help tell the Space Station story to everyday people in new and more effective ways. It is a grant program sponsored by the International Space Station Program, the Space Operations Mission Directorate of NASA Headquarters and the Johnson Space Center Education Office.

Students participating in NASA Means Business develop a promotion plan, an outreach plan and a public service announcement. The focus is on the Space Station’s role as a bridge to Mars, technology development, research opportunities, international cooperation and future exploration. The final presentations were judged at JSC in May.

“What impressed me most as a NASA Means Business judge was how a group of students from various cultural backgrounds and educational interests, beginning with little to no insight into the day-to-day workings of NASA, intelligently conquered the learning curve and successfully collaborated,” said NASA Means Business judge Roger Weiss, technical integration specialist with Science Applications International Corporation. “They produced some highly insightful, creative, thought-provoking and very effective public service announcements and promotion plans.”

In February, student and faculty representatives from the five finalist teams – the University of New Hampshire, Georgia Tech, the University of Texas-Corpus Christi, San Jacinto College South Campus and ASPIRE from Arizona State University/Art Institute of Phoenix – visited JSC for several days. They received orientations on human spaceflight, the International Space Station Program and JSC from Bill Gerstenmaier, ISS Program Manager, Wendell Mendell of the Solar System Exploration Division and several others. The teams visited again in May for their final presentations, and the Arizona-based team was selected as the national winner.

The team was called ASPIRE, which stands for Arizona Students Present Interesting Research to Everyone, and consisted of more than 60 students and several faculty members from Arizona State and the Art Institute of Phoenix. The two schools had a multidisciplinary group of engineering, business management and communications students.



ASPIRE students are shown the new International Space Station exhibit at the Smithsonian National Air and Space Museum by Roger Launius.

“The best part of the NASA Means Business program was bringing together students from non-science and engineering backgrounds who were interested in space but never felt that they could be part of NASA,” said ASPIRE Program Manager Lisa Tidwell. “This gave them an opportunity to use their creative minds in production, graphic design and communication campaigns.”

“This is an enormously positive educational experience,” Weiss said.

In July, ASPIRE representatives visited Washington, D.C., where they were able to present their work to Associate Administrator for Space Operations Bill Readdy, the Mission Operations Directorate and NASA Administrator Sean O’Keefe. The students were also interviewed for the National Space Society cable TV program “Around Space” and toured NASA TV facilities, the Smithsonian National Air and Space Museum and the newly opened Udvar Hazy Center at Dulles in Virginia.

“It was truly rewarding to see how well received our ideas were by the Agency, especially at Headquarters,” Tidwell said.

NASA Means Business public service announcements are already appearing on NASA TV, and will be offered to network television.